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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/696,393

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Colt R. Correa

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EXAMINER

WEI, ZHENG

ART UNIT

PAPER NUMBER

2192

MAIL DATE

DELIVERY MODE

05/14/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/696,393	Applicant(s) CORREA, COLT R.	
	Examiner ZHENG WEI	Art Unit 2192	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 January 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,5-8,10-12 and 14-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) 1,5-8,10-12 and 14-19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08 April 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>10/15/2007</u> . | 6) <input type="checkbox"/> Other: _____ |

Remarks

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 01/30/2008 has been entered.
2. This office action is in response to the amendment filed on 01/30/2008.
3. Claims 1, 8, 10 and 16 have been amended.
4. The objection to claims 1, 5-8 is withdrawn in view of the Applicants' amendment.
5. The 35 U.S.C. § 101 rejection to claims 10-15 is withdrawn in view of Applicants' amendment.
6. Claims 1, 5-8, 10-12, 14-19 remain pending and have been examined.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.
8. Claims 1, 5-8, 10-12 and 14-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Karp (Karp et al., US 2003/0061598)

Claim 1:

Karp discloses a method for controlling the value of a RAM variable inside an executable program, comprising:

- presenting a software program in executable form (object code) and having a plurality of machine instructions of a finite quantity of fixed lengths (see for example, Fig.1 element 60 and related text; also see p.1, [0019], lines 1-3, “The object code includes a sequence of instructions I1 though In object code”);
- identifying at least one machine instruction that accesses a variable defined in random access memory associated with the software program (see for example, Fig.1, element 14, Fig.2, element 15, “Object Code Adapter” and related text; also see p.2, [0031], “uses the present techniques to adapt a set of object code”);
- replacing the identified machine instruction in the executable form of the software program with a break instruction that references executable code including branch instruction to reference an address outside an address space of the software program (see for example, Fig.1, element 14, “O Object Code Adapter” and related text; also see p.1, [0020], “the object code adapter adapts the object code by providing hit instructions”; also see Fig.1, element 62 and related text; also see, p.1, [0021], “replaces the instruction I3 with a break instruction B1” [emphasis added]; also see paragraph [0022], “The hint code 64 is code to be executed by the processor 10 when the break

instruction B1 is executed...The hint code 64 may include a branch or return instruction [emphasis added]; and Fig. 3, step 122 obtain a replaced instruction and related text);

- Defining a set of relocated instructions at the address referenced by the branch instruction, wherein the set of relocated instructions function to change a value of the variable (see for example, paragraph [0034], TABLE 1 - the example of hint table and related text); and
- Executing the executable form of the software program having the branch instruction (see for example, p.2, [0032], “for execution by the processor by inserting a set of break instructions”; also see paragraph [0047], “the processor 11 branches to a target address specified in Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to hint register and inserts the address of the instruction that caused the break into the hint register 12”).

But Karp does not explicitly disclose replacing the identified instruction directly with a branch instruction. However, the implementation of Karp using the break instruction and branch instruction together provides the same feature/functionality to use redirect/branch instruction to jump to a different memory address. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to use Karp’s implementation to reference different memory address. Because Karp’s implementation provides more flexible options that can include branch instruction and more

additional instructions in the hint code (see for example, paragraph [0022],
“...may include addition instructions...”)

Claim 5:

Karp further discloses the method of claim 1 wherein the step of identifying at least one machine instruction further comprises

- determining location information for the at least one machine instruction within the software program (see for example, Fig.4, steps 110 “Examine the Instruction Stream” and related text).

Claim 6:

Karp also discloses the method of claim 5 wherein the step of determining location information further comprises

- identifying an address for the at least one machine instruction using the image of the executable containing the machine instructions that comprise the executable (see for example, Fig.2 elements 11 Processor, 20 Memory, element 18 and element 15 Object Code Adapter and related text; also see Fig.4, steps 110 “Examine the Instruction Stream” and related text).

Claim 7:

Karp further discloses the method of claim 6 wherein the step of replacing the at least one machine instruction further comprises

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- inserting the replacement instruction into a program memory image of the software program at said address (see for example, Fig.4, step 112, “Insert a Break Instruction into the Instruction Stream Where Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to Hint instruction is to be Executed” and related text).

Claim 8:

- Karp also discloses the method of claim [2] 1, wherein said branch instruction references a set of relocation instruction residing outside an address space for the software program (see for example, p.2, [0028] “the processor 10 may be designed to branch to a predetermined address”).

Claims 10-12 and 14-15:

Claims 10-12 and 14-15 are system version for performing the claimed method as in claims 1 and 5-8 addressed above, wherein all claimed limitation functions have been addressed and/or set forth above and certainly a computer system would need to run and/or practice such function steps disclosed by reference above. Thus, they also would have been obvious (see for example, Fig.5-6 and related text; also see, p.4, lines 10-42).

Claims 16-19:

Claims 16-19 are another version of the claimed method, wherein all claimed limitation functions have been addressed in claims 1 and 5-8 above respectively. Thus, they also would have been obvious in view of reference teachings above.

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.
10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Zheng Wei whose telephone number is (571) 270-1059 and Fax number is (571) 270-2059. The examiner can normally be reached on Monday-Thursday 8:00-15:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tuan Q. Dam can be reached on (571) 272-3695. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Any inquiry of a general nature of relating to the status of this application or proceeding should be directed to the TC 2100 Group receptionist whose telephone number is 571- 272-1000.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/ZW/

/Tuan Q. Dam/
Supervisory Patent Examiner, Art Unit 2192